

United States Department of the Interior



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January 30, 2012

To: Interested Parties

From: Felipe Carrillo, Supervisory Fish Biologist, Red Bluff Fish and Wildlife Office

Subject: Biweekly report (January 15, 2012 - January 28, 2012)

Please find attached preliminary daily estimates of passage, 90% confidence intervals, and fork length ranges of juvenile salmonids sampled at Red Bluff Diversion Dam for the period January 15, 2012 through January 28, 2012. Race designation was assigned using length-at-date criteria.

This report also contains graphical displays of salmonid passage dating back to 2005 for comparison.

Please note that data contained in these reports is subject to revision as this data is preliminary and undergoing QA/QC procedures.

If you have any questions, please feel free to contact me at (530) 527-3043 ext 246

Table 1.— Preliminary estimates of passage by brood-year (BY) and run for unmarked juvenile Chinook salmon and steelhead trout captured by rotary-screw traps at Red Bluff Diversion Dam (RK391), Sacramento River, CA, for the dates listed below. Results include estimated passage, peak river discharge volume, water temperature, turbidity, and fork length (mm) range in parentheses. A dash (-) indicates that sampling was not conducted on that date.

	Discharge volume (cfs) ¹	Water temperature (°C)	Water turbidity (NTU)	Estimated passage				
Date				BY11 Winter	BY11 Spring	BY11 Fall	BY11 Late-Fall	BY12 RBT
1/15/2012	5,720	8.8	2.7	0 (-)	0(-)	16,245 (30 – 45)	38 (140)	0 (-)
1/16/2012	5,680	8.1	1.8	240 (75 – 85)	0 (-)	23,752 (30 – 41)	58 (149)	0 (-)
1/17/2012	5,630	7.6	1.9	405 (68 – 110)	58 (48)	31,088 (30 – 42)	58 (125)	58 (179)
1/18/2012	5,590	7.8	1.8	57 (63)	57 (48)	22,008 (30 – 44)	0(-)	0 (-)
1/19/2012	5,570	8.2	2.1	84 (69 – 87)	38 (52)	12,125 (29 – 45)	0(-)	0 (-)
1/20/2012	6,260	8.2	2.5	221 (78 – 123)	37 (48)	6,330 (32 – 45)	38 (147)	0(-)
1/21/2012	27,700	7.2	_	_	_	_	_	_
1/22/2012	24,600	7.3	_	_	_	_	_	_
1/23/2012	24,500	6.9	_	_	_	_	_	_
1/24/2012	25,700	7.8	27.3	3,215 (76 – 81)	1,496 (52 – 57)	337,227 (30 – 47)	0 (-)	168 (30)
1/25/2012	8,770	8.9	12	739 (77 – 111)	1,632 (49 – 64)	134,755 (28 – 47)	0 (-)	98 (82 – 96)
1/26/2012	7,110	9.7	7.9	367 (68 – 103)	196 (49 – 65)	45,418 (29 – 48)	39 (154)	197 (70 – 170)
1/27/2012	8,030	9.3	9.7	1,104 (67 – 116)	219 (50 – 54)	78,347 (29 – 47)	64 (192)	37 (105)
1/28/2012	7,600	8.5	7.8	526 (76 – 122)	186 (52)	94,469 (29 – 48)	0 (-)	36 (75)
Biweekly Total ²				9,506	5,443	1,096,441	369	818
Biweekly Lower 90% Confidence Interval				-15,167	-10,411	-1,048,291	-2,766	-3,989
Biweekly Upper 90% Confidence Interval				34,179	21,297	3,241,173	3,504	5,625
Brood Year Total				870,375	99,201	1,423,945	97,542	851
Brood year Lower 90% Confidence Interval				614,151	70,049	644,867	19,999	77
Brood year Upper 90% Confidence Interval				1,126,600	128,354	2,203,023	175,084	1,625

¹ Peak daily discharge values do not account for diversions at RBDD and only represent peak flows registered at the Bend Bridge Gauging station (http://cdec2.water.ca.gov/cgi-progs/queryFx?bnd).

² Biweekly totals may be greater than the sum of the daily estimates presented in this table if sampling was not conducted on each day of the biweekly period. A dash (-) denotes those dates. To estimate daily passage for days that were not sampled, we impute missed sample days with the weekly mean value of days sampled within the week.

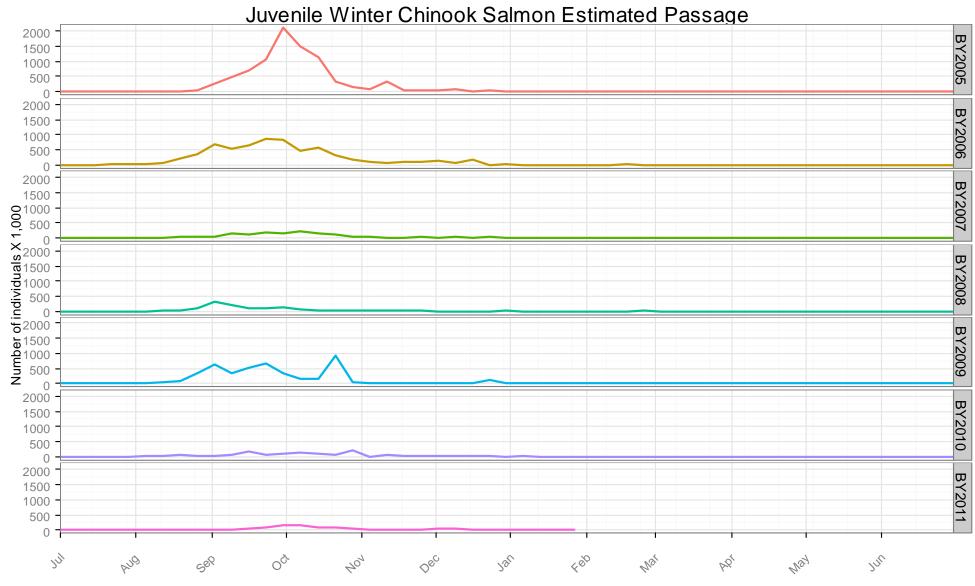


Figure 1. Weekly estimated passage of juvenile winter Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period July 1 2005 to present.

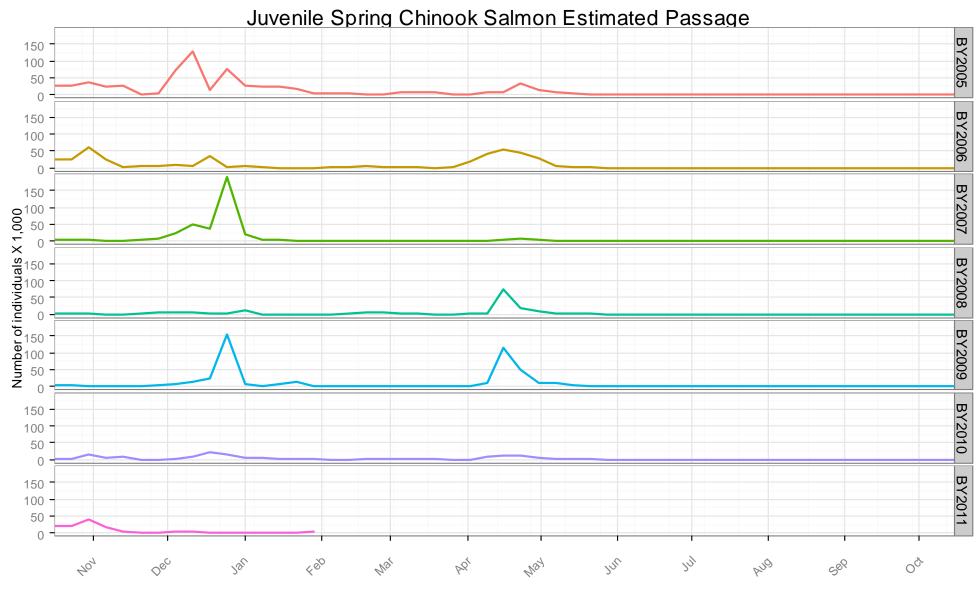


Figure 2. Weekly estimated passage of juvenile Spring Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period October 16 2005 to present.

Juvenile Onchorhyncus mykiss Estimated Passage 25 20 BY2006 15 10 5 0 25 20 15 BY2007 10 5 BY2008 BY2009 BY2010 25 20 BY2011 15 10 5 0 25 20 15 BY2012 10 5 0 400 RUD 78/ Nay 7171

Figure 3. Weekly estimated passage of juvenile Rainbow/Steelhead trout at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period January 1 2006 to present.

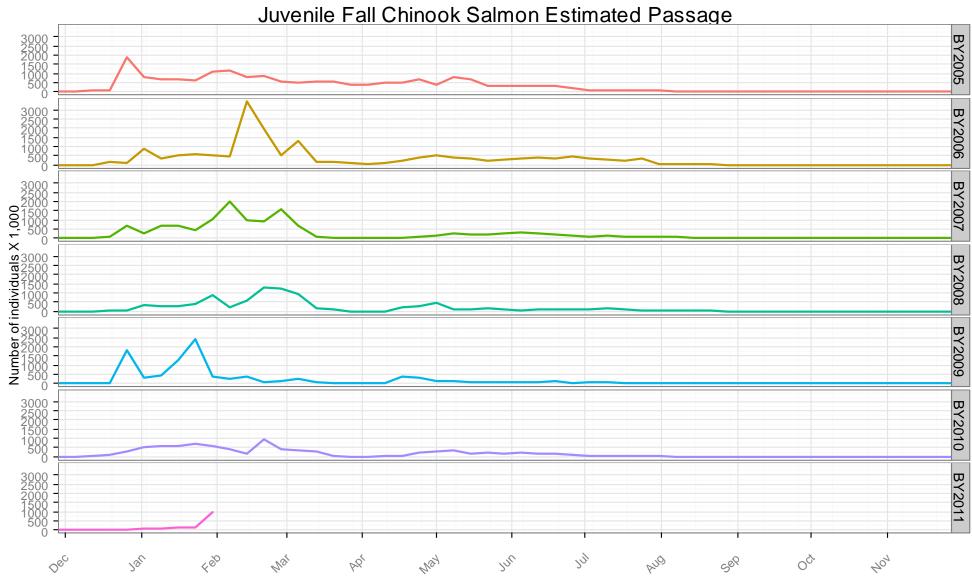


Figure 4. Weekly estimated passage of juvenile Fall Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period December 1 2005 to present.

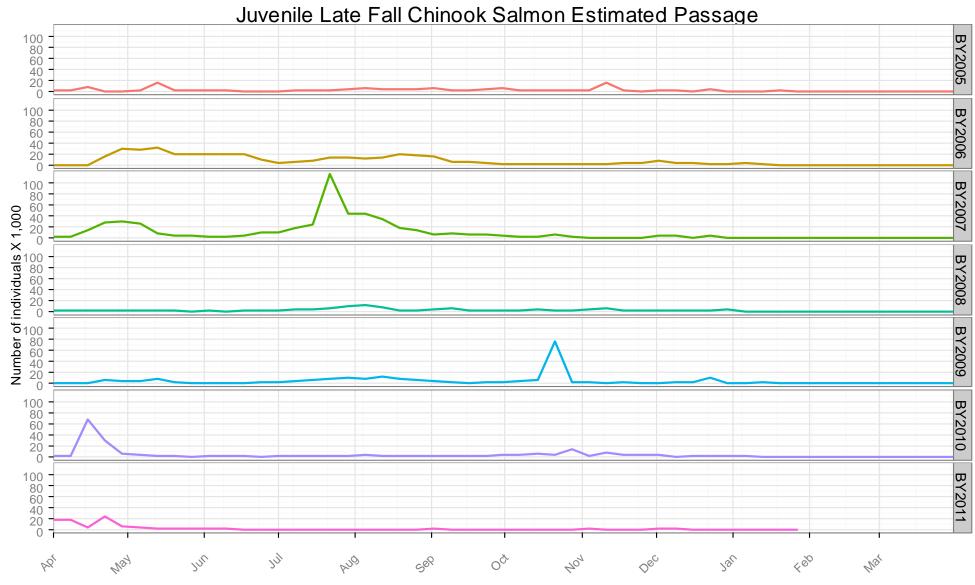


Figure 5. Weekly estimated passage of juvenile Late Fall Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period April 1 2005 to present.

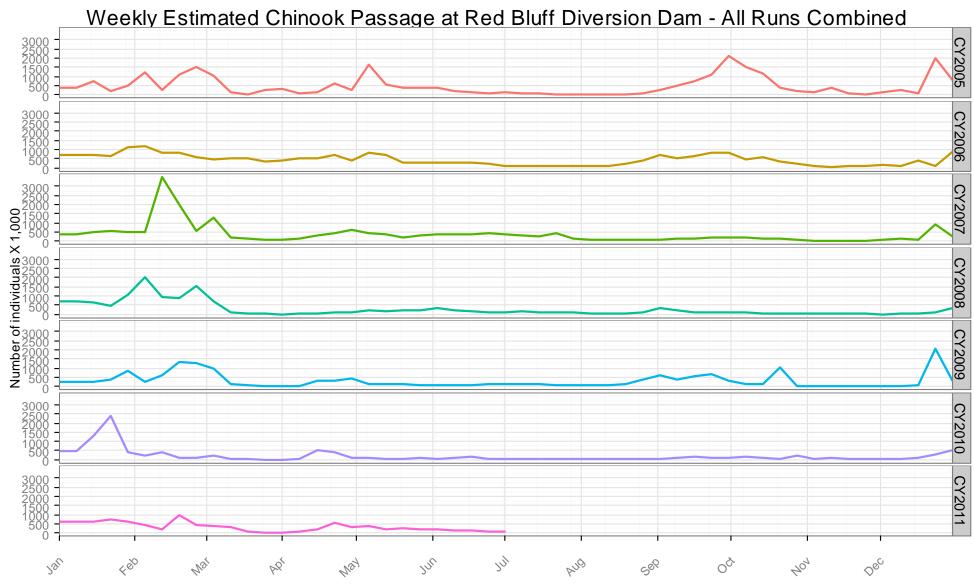


Figure 6. Weekly estimated passage of juvenile Chinook Salmon at Red Bluff Diversion Dam (RK391), by calendar year. Fish were sampled using rotary-screw traps for the period January 1 2005 to June 30 2011